

## INTERNATIONAL SEARCH REPORT

International application No.  
PCT/KR2005/000016

**A. CLASSIFICATION OF SUBJECT MATTER****IPC7 G01N 30/88**

According to International Patent Classification (IPC) or to both national classification and IPC

**B. FIELDS SEARCHED**

Minimum documentation searched (classification system followed by classification symbols)

IPC7 G01N 30/88, G01N 33/53, G01N 33/543, C12Q 1/68

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched  
Korean Patent and Applications for Inventions since 1975

Korean Utility Models and Applications for Utility Models since 1975

Japanese Utility Models and Application for Utility Models since 1975

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

eKIPASS, WPI, USPTO, PAJ, CAPLUS(STN), INSPECT "fluorescence, laser, lateral, flow, sandwich, analyte, detect\*, captur\*, captor, label, surface, conjugate, etc."

**C. DOCUMENTS CONSIDERED TO BE RELEVANT**

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X Y	WO 03062824 A1 (Boditech Inc., KR) 31 Jul 2003 - see the whole document	1, 4, 5, 8, 9, 11 2, 3, 6, 7, 10, 13
Y	US 6136549 A (Feistel, CC., US) 24 Oct 2000 - see column 1; line 47 ~ column 5, line 11; column 11, line 23 ~ column 12, line 38; & column 13, lines 18 ~ 67 - see Figure 3A & B	3, 7, 10
Y	US 5705338 A (Piran, U., et al., US) 06 Jan 1998 - see column 3, line 55 ~ column 4, line 19 - see claims 6 & 7	2, 6, 13
A	US 5712170 A (Kouvonen, IS., et al., FI) 27 Jan 1998 - see the entire document	1-15
A	US 5658723 A (Oberhardt, B., US) 19 Aug 1997 - see the entire document	1-15

☐ Further documents are listed in the continuation of Box C.☒ See patent family annex.

* Special categories of cited documents:	"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
"A" document defining the general state of the art which is not considered to be of particular relevance	"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
"E" earlier application or patent but published on or after the international filing date	"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art
"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of citation or other special reason (as specified)	"&" document member of the same patent family
"O" document referring to an oral disclosure, use, exhibition or other means	
"P" document published prior to the international filing date but later than the priority date claimed	

Date of the actual completion of the international search  
19 APRIL 2005 (19.04.2005)

Date of mailing of the international search report  
21 APRIL 2005 (21.04.2005)

Name and mailing address of the ISA/KR



Korean Intellectual Property Office  
920 Dunsan-dong, Seo-gu, Daejeon 302-701,  
Republic of Korea

Facsimile No. 82-42-472-7140

Authorized officer

SHIN, Weon Hye

Telephone No. 82-42-481-5591



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## Box No. II Observations where certain claims were found unsearchable (Continuation of item 2 of first sheet)

This international search report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. ☐ Claims Nos.:  
because they relate to subject matter not required to be searched by this Authority, namely:
2. ☐ Claims Nos.:  
because they relate to parts of the international application that do not comply with the prescribed requirements to such an extent that no meaningful international search can be carried out, specifically:
3. ☐ Claims Nos.:  
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

## Box No. III Observations where unity of invention is lacking (Continuation of item 3 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:

The common concept linking together the independent Claims 1, 5 & 9 is the following:

Group I : Claims 1-11 The said common concept is apparently neither novel nor inventive. See under Box V of the written opinion.

Group II : Claims 12, dependent on Claim 9, features the window wall having a slope of 20 degree.

Group III : Claims 14 & 15, dependent on Claim 9, feature a time reading window on top plate of the cartridge housing.

The requisite unity of invention (Rule 13.1 PCT) therefore no longer exists between said Groups as far as a single inventive concept within the meaning of Rule 13.2 does not exist between Groups I-III.

1. ☐ As all required additional search fees were timely paid by the applicant, this international search report covers all searchable claims.
2. ☒ As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.
3. ☐ As only some of the required additional search fees were timely paid by the applicant, this international search report covers only those claims for which fees were paid, specifically claims Nos.:
4. ☐ No required additional search fees were timely paid by the applicant. Consequently, this international search report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

Remark on Protest.

- ☐ The additional search fees were accompanied by the applicant's protest.
- ☐ No protest accompanied the payment of additional search fees.

**INTERNATIONAL SEARCH REPORT**  
Information on patent family members

International application No.  
**PCT/KR2005/000016**

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
WD 03062824 A1	31 Jul 2003	AU 2003238066 A1 KR 2003065341 A	02 Sep 2003 06 Aug 2003
US 06136549 A	24 Oct 2000	AU 200110734 A1 CA 2387788 A1 EP 01226434 A1 JP 15512625 A NO 20021744 A WO 0129559 A1	30 Apr 2001 26 Apr 2001 31 Jul 2002 02 Apr 2003 12 Jun 2002 26 Apr 2001
US 05705338 A	06 Jan 1998	AT 186599 E AU 7157694 A1 CA 2117597 AA DE 69421582 T2 EP 00643306 A2 JP 7151757 A2 KR 19950009259 A PL 304988 A1	15 Nov 1999 30 Mar 1995 16 Mar 1995 17 Feb 2000 15 Mar 1995 16 Jun 1995 21 Apr 1995 20 Mar 1995
US 05712170 A	27 Jan 1998	AU 5701594 A1 DE 69328120 C0 EP 0677170 A1 FI 925922 A0 JP 08505224 A PL 304890 A1 WO 9415215 A1	19 Jul 1994 20 Apr 2000 18 Oct 1995 29 Dec 1992 04 Jun 1996 09 Jan 1995 07 Jul 1994
US 05658723 A	19 Aug 1997	AT 120543 E AU 2003247528 A1 CA 1310566 A1 DE 3853457 C0 EP 00308494 B1 JP 1502797 A WO 8807666 A1	15 Apr 1995 13 May 2004 24 Nov 1992 04 May 1995 29 Mar 1995 28 Sep 1989 06 Oct 1988